

Accelerated Renewable Energy Development Draft Staff White Paper

Prepared in Support of the 2004 Integrated Energy Policy
Report Update Proceeding (03-IEP-01)

August 27, 2004

Pam Doughman, Ph.D.
Energy Commission Specialist
Renewable Energy Program



Draft Staff White Paper Purpose, Process

- Update to the renewable energy topics in the *2003 Integrated Energy Policy Report (2003 Energy Report)*
 - Statewide RPS of 20% by 2010
 - Develop post-2010 goals and individual targets considering resource mix, transmission, availability of cost-effective renewable energy
- Workshops held May 4 and June 8, 2004



Summary of Draft Staff White Paper

- Background
 - RPS procurement process, PV incentive programs, incorporating DG into RPS
- Trends and outlook
 - Existing renewables, estimated needs for RPS
- Policy issues for central-station renewables
 - Post-2010, individual utilities, RECs, challenges/risks
- Key policy issues for distributed PV
 - Over-subscription, performance-based incentives, PV in new homes, net metering caps

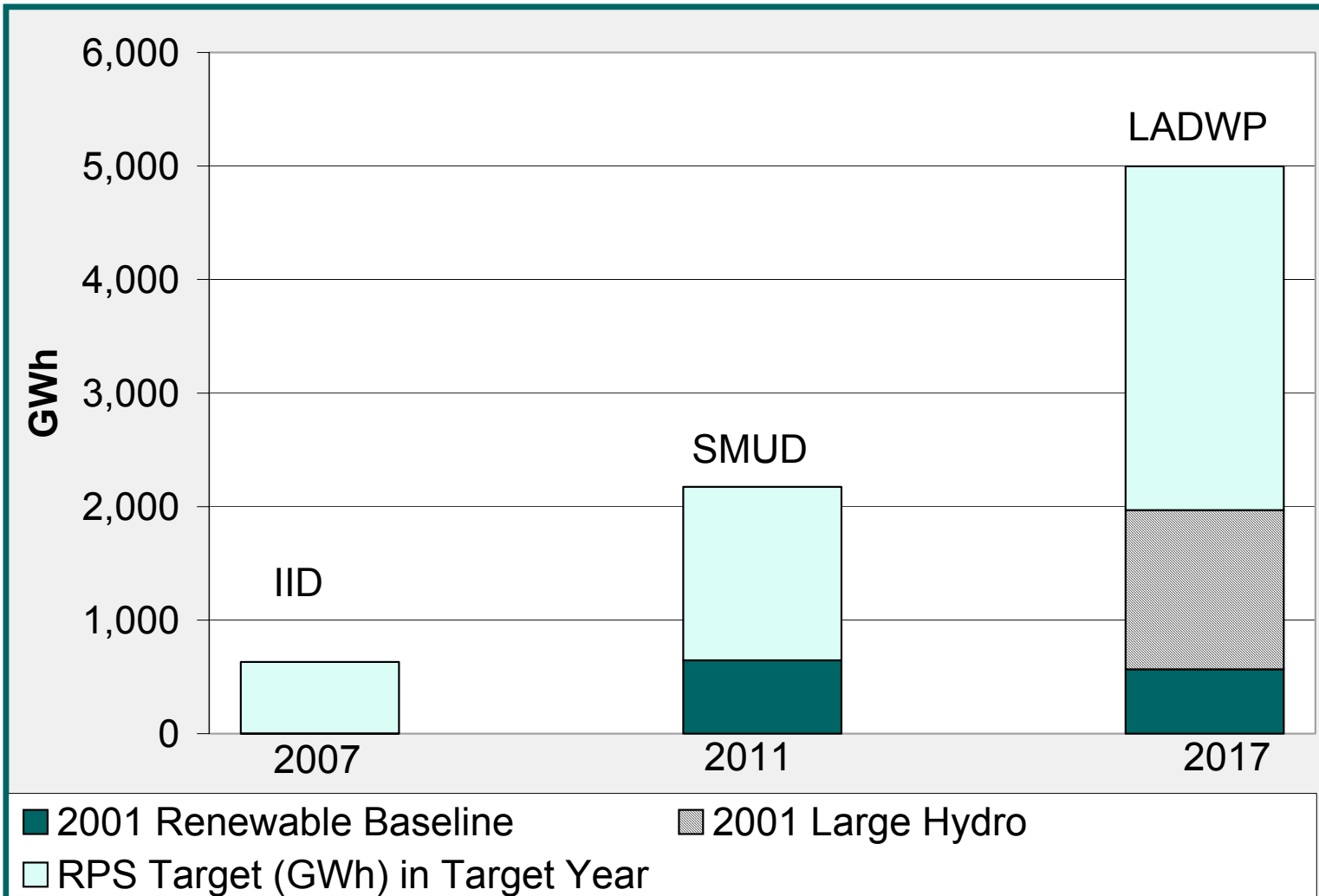


Post-2010 Statewide Goals

- *2003 Energy Report* calls for development of more ambitious post-2010 statewide RPS goals
- Public funds can catalyze private investment if used to send clear signals for long-term plans
- 20% by 2010 sends signal for next six years
- Transmission, R&D, project planning may require more than six years lead time
- Except for IID and SMUD, most municipal utilities plan for 20% by 2015 or 2017



IID, SMUD, and LADWP Plans to Reach 20% Renewables

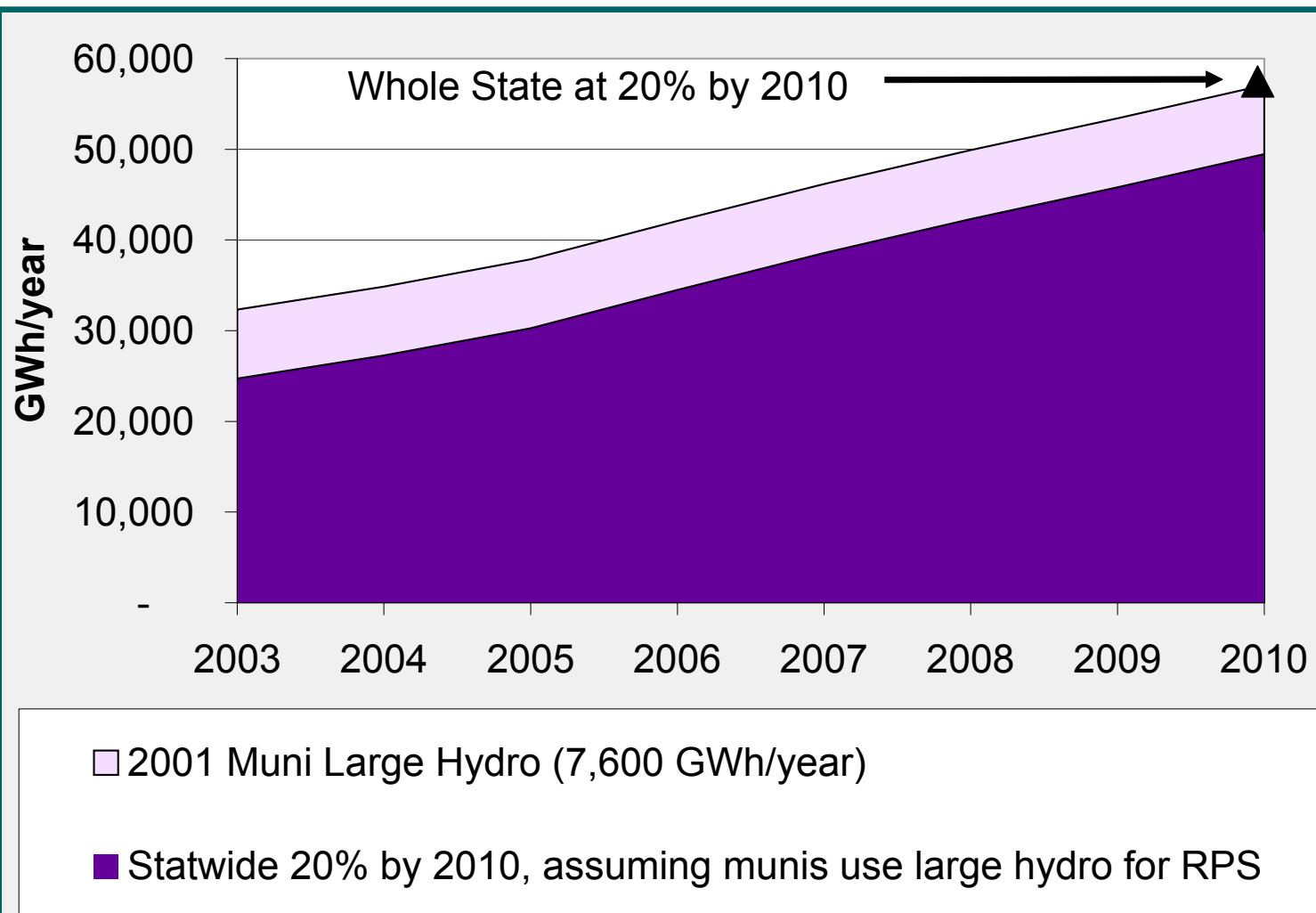


Slide 5



Estimated Renewables to Reach 20% by 2010

Many Publicly Owned Utilities Include Large Hydro in RPS



Slide 6

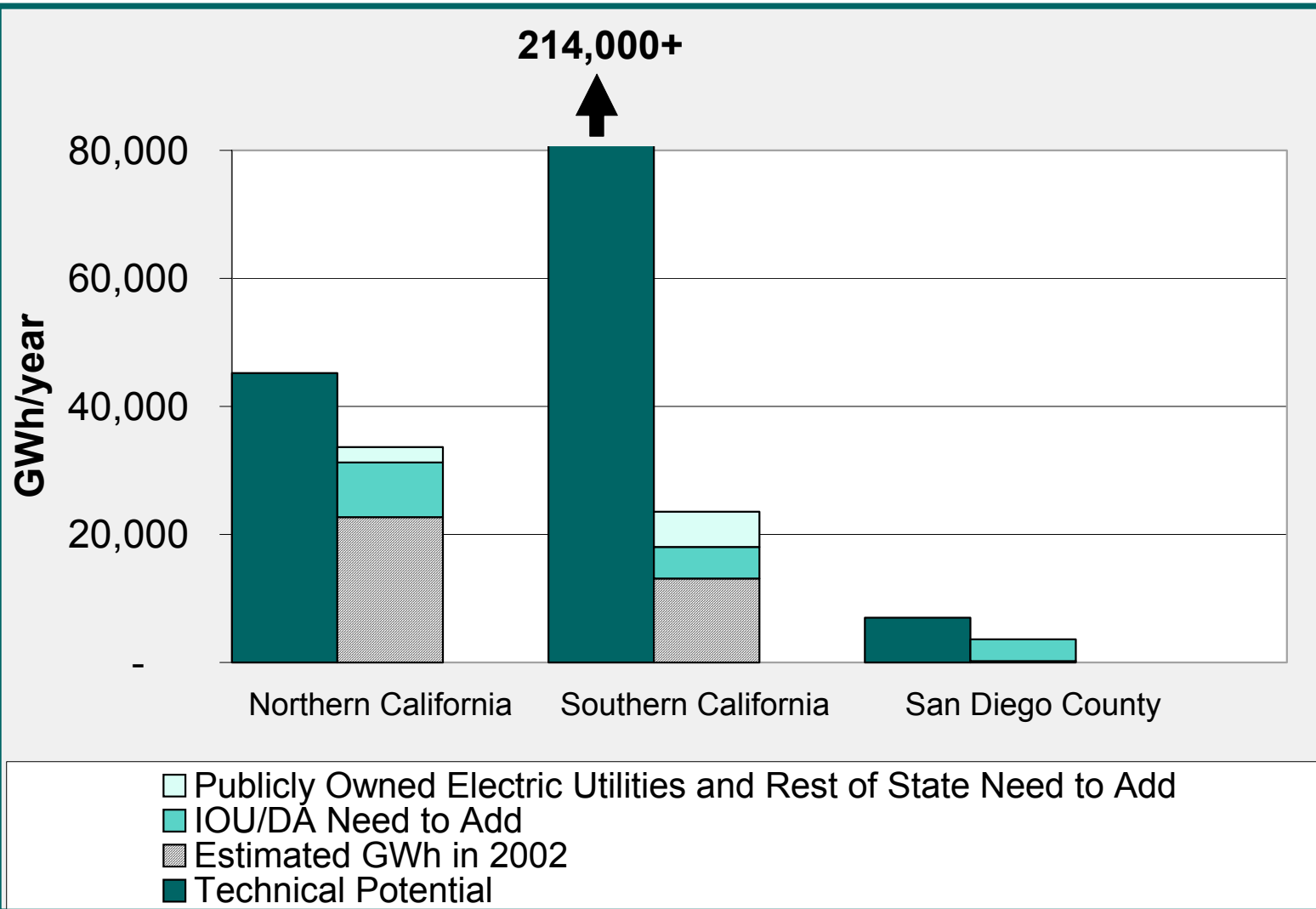


Individual Utility Targets

- SDG&E is likely to need to import renewable energy. SCE has potential, if developed, to export to SDG&E, PG&E, and others.
- SCE indicates it will reach 20% this year.
- SCE has shown leadership in renewables development. SCE's continued participation in accelerated renewable development is needed.
- Revised SCE target may be beneficial. PG&E and SDG&E target of 20% appears reasonable.
- Possible exemption for small retail sellers.



Technical Potential v. 20% by 2010 Needs by Region



Slide 8



Unbundled RECs

- 11 states use unbundled RECs in RPS
- Voluntary markets for unbundled RECs are small but growing
- WREGIS will track RECs in the WECC
- Use of RECs in California,
 - IOUs: Bundled Only
 - ESP/CCAs: TBD
 - Publicly Owned Electric Utilities: ??
- Advantages and Disadvantages of RECs



Barriers to 20 Percent by 2010

- Transmission availability to access renewable energy and meet RPS targets.
- Permitting for wind turbines may be delayed until steps taken to prevent avian deaths.
- Permitting and financing need to be in place to meet 20% renewables by 2010.



Policy Issues for PV

- Over-subscription of PV incentive programs
 - Without changes in program design or funding level, incentives for PV in IOU service areas cannot be maintained at current subscription levels
- Performance-based incentives
 - Pilot to be developed for use in 2005
- PV in new homes
 - More than 130,000 new single-family homes per year
 - About 500 of these new homes include PV
 - Pending legislation to substantially increase PV in new and existing homes



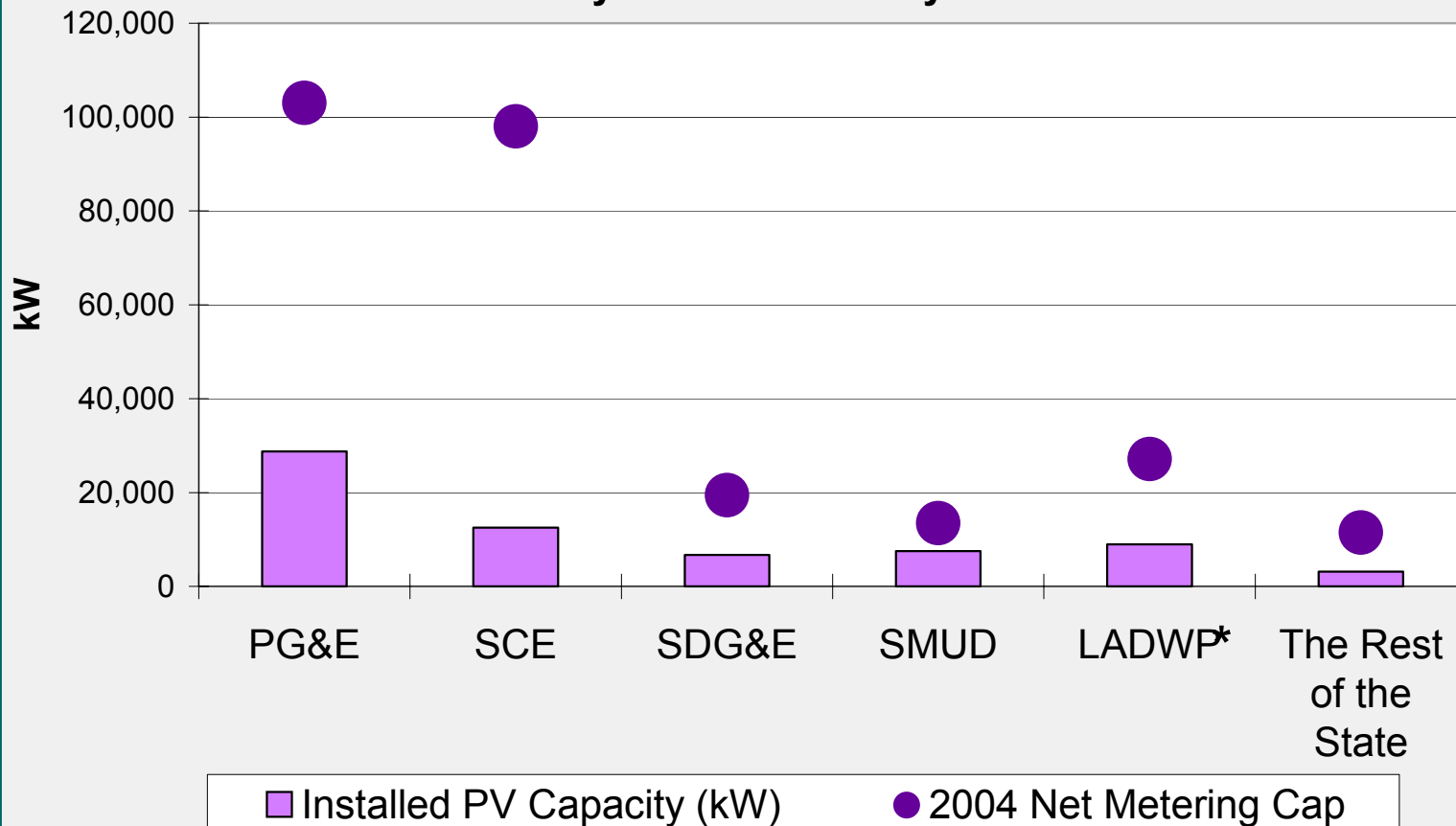
Policy Issues for PV (continued)

- Net metering cap
 - SDG&E cap is 19 MW, but San Diego has a regional goal of 50 MW
 - Assuming recent growth rates continue, SDG&E could reach cap by 2006, PG&E by 2008, SCE by 2013
 - Cap may need to be increased to avoid dampening PV development



Net Metering Caps (1/2 of 1% of peak)

**Estimated Net Metering Caps and
Grid-Connected PV Capacity Installed in California
by Service Territory**



Discussion Questions

- First round table is on Chapter 4: Policy Issues for Central-Station Renewables Development
- Second round table is on Chapter 5: Key Policy Issues for Distributed PV Generation

Note: See one-page handout on questions for discussion on table near doors (and posted on-line)



Next Steps

| | |
|----------|--------------------------------------|
| Sep 15 | Draft Committee Document |
| Sep-Oct | Hearings on Draft Committee Document |
| Sep 29 | San Francisco |
| Sep 30 | Sacramento |
| Oct 1 | San Diego |
| Oct 5 | Los Angeles |
| Oct 8 | Fresno |
| Oct 20 | Final Committee Document |
| Nov 3 | Considered for Adoption |
| November | Transmit Final Document to Governor |



For More Information

www.energy.ca.gov/2004_policy_update

